

What is claimed is:

[Claim 1] 1. A method for patterning a light guide plate comprising:

- (a) using laser beams to form a roughened surface on a mold; and
- (b) manufacturing the light guide plate with the mold.

[Claim 2] 2. The method of claim 1 wherein step (a) further comprises using Nd-YAG laser beams to form the roughened surface on the mold.

[Claim 3] 3. The method of claim 1 wherein step (a) further comprises using pulse laser beams to form the roughened surface on the mold.

[Claim 4] 4. The method of claim 1 further comprises adjusting a laser machining parameter for controlling roughness of the roughened surface on the mold.

[Claim 5] 5. The method of claim 1 wherein the roughened surface comprises micro-mirror structures.

[Claim 6] 6. The method of claim 1 wherein step (b) further comprises manufacturing the light guide plate with the mold by injection molding.

[Claim 7] 7. The method of claim 1 wherein step (b) further comprises manufacturing the light guide plate with the mold in a thermoforming method.

[Claim 8] 8. The method of claim 1 wherein step (b) further comprises forming a rollover mold by rolling over the mold in an electroforming method and manufacturing the light guide plate with the rollover mold.

[Claim 9] 9. An edge-light backlight module comprising:
a light source; and

a light guide plate installed on a lateral side of the light source, the light guide plate comprising:

a light-guiding surface; and

a bottom surface positioned below the light-guiding surface, the bottom surface being a roughened surface formed of micro-mirror structures.

[Claim 10] 10. The edge-light backlight module of claim 9 wherein the light-guiding surface is formed of linear prism structures.

[Claim 11] 11. An edge-light backlight module comprising:
a light source; and

a light guide plate installed on a lateral side of the light source, the light guide plate comprising:

a light-guiding surface being a roughened surface formed of micro-mirror structures; and

a bottom surface positioned below the light-guiding surface.